Safe Transportation System

Tangible Result Driver – Don Hillis,
Director of System Management

MoDOT works closely with other safety advocates to make our roads and work zones safer. The department supports educational programs which encourage safe driving practices and enforcement efforts which increase adherence to traffic laws. MoDOT will not compromise safety because it believes in the well-being of its employees and customers.

Safe Transportation System

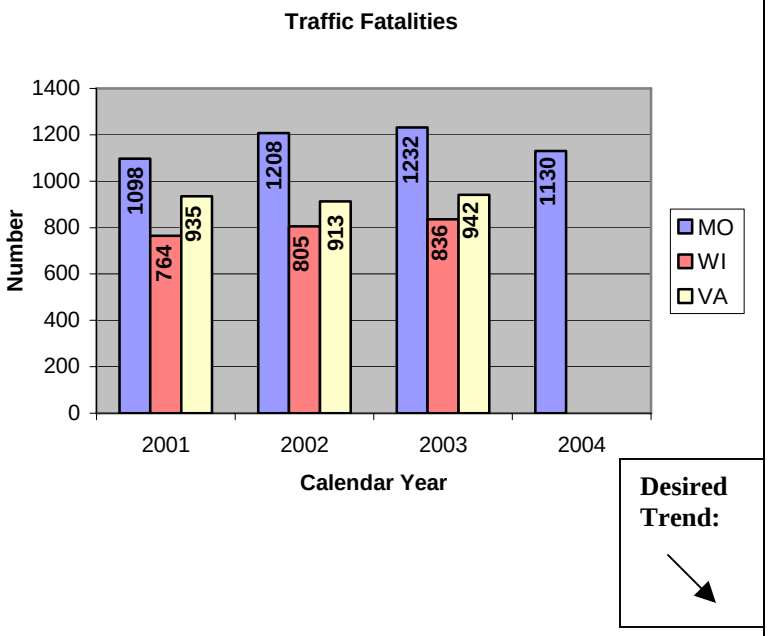
Number of fatalities and injuries year to date

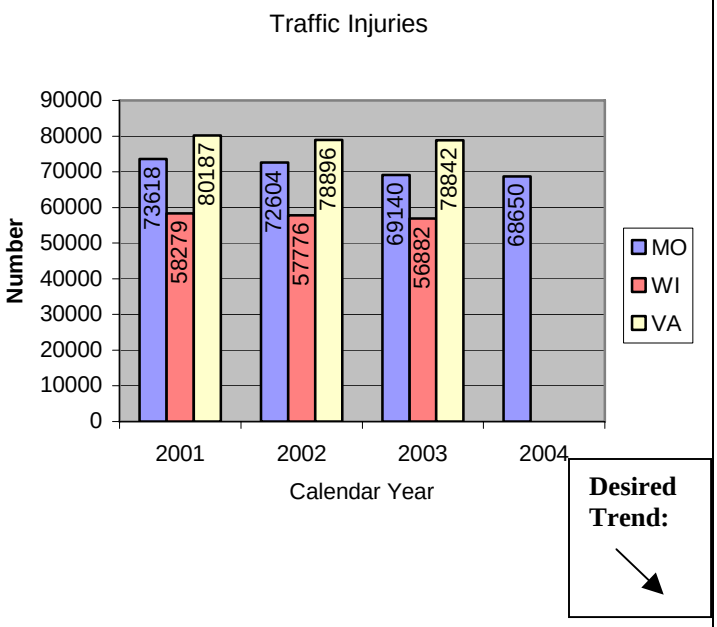
Result Driver: Don Hillis, Director, System Management
Measurement Driver: Scott Turner, Highway Safety Program Administrator

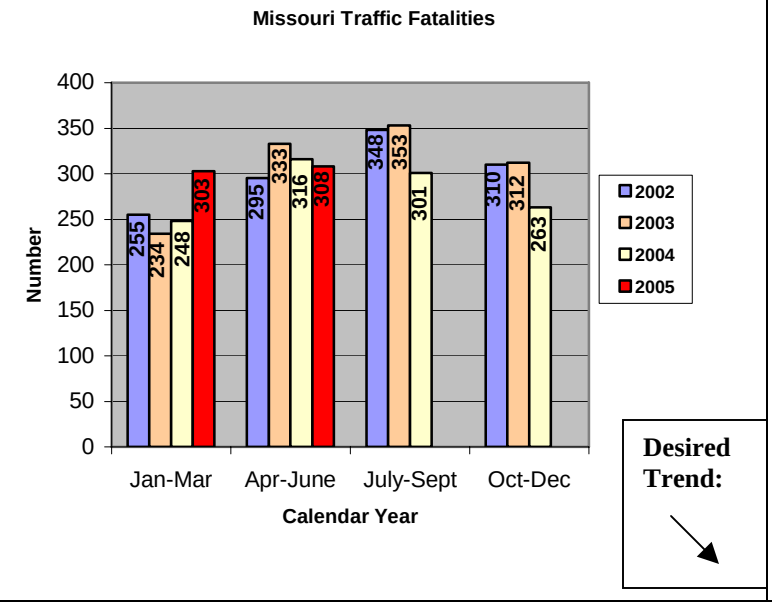
Purpose of the Measure:
This measure tracks annual trends in fatalities and injuries resulting from motor vehicle crashes in Missouri. It will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on all Missouri roads.

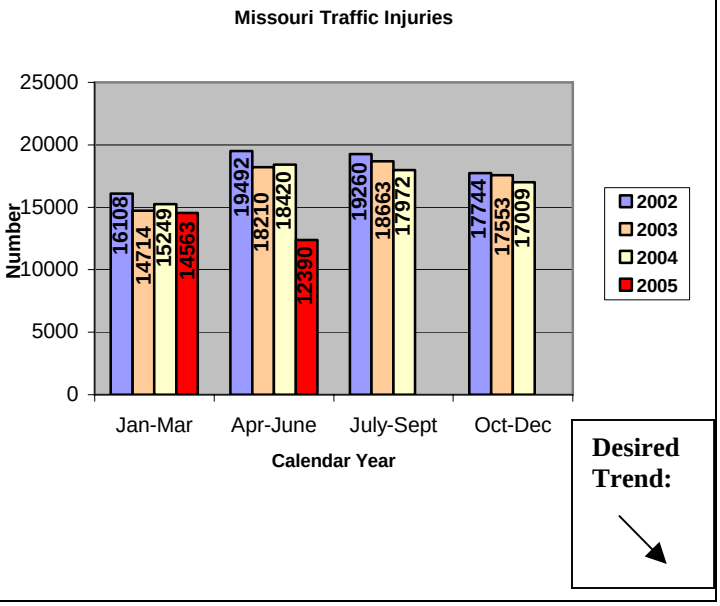
Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system. Reports on crash data are available to law enforcement and traffic safety advocates for crash analysis through both databases. Fatality data is not final until each fatal crash has been validated and the investigation is closed. Some 2005 crashes are under investigation, therefore, quarterly crash data is not in final form. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri. Each state's data is derived from their traffic crash fact sheets.

Improvement Status: Fatalities decreased by eight percent from 2003 to 2004 after a significant increase over the past three years. Injuries continued a downward trend. Fatalities in the first quarter of calendar year 2005 were higher than the three previous years due to non-use of safety belts, speeding, alcohol- and drug-impaired driving, and a higher number of pedestrian fatalities. Injuries were lower in the first quarter of 2005 than in the previous three years, partially due to increased safety belt use. Safety advocates, organizations and agencies across Missouri have joined together to create *Missouri's Blueprint for Safer Roadways*. The Blueprint outlines strategies to reduce fatal and serious injuries on our roadways with a goal of 1,000 or fewer fatalities by 2008.


Traffic Fatalities
Number
1400
1200
1000
800
600
400
200
0
1098
764
935
1208
805
913
1232
836
942
1130
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:


Traffic Injuries
Number
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
73618
58279
80187
72604
57776
78896
69140
56882
78842
68650
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:


Missouri Traffic Fatalities
Number
400
350
300
250
200
150
100
50
0
255
234
248
303
295
333
316
308
348
353
301
310
312
263
Jan-Mar
Apr-June
July-Sept
Oct-Dec
Calendar Year
2002
2003
2004
2005
Desired Trend:


Missouri Traffic Injuries
Number
25000
20000
15000
10000
5000
0
16108
14714
15249
14563
19492
18210
18420
12390
19260
18663
17972
17744
17553
17009
Jan-Mar
Apr-June
July-Sept
Oct-Dec
Calendar Year
2002
2003
2004
2005
Desired Trend:

Safe Transportation System

Number of impaired driver-related fatalities and injuries year to date

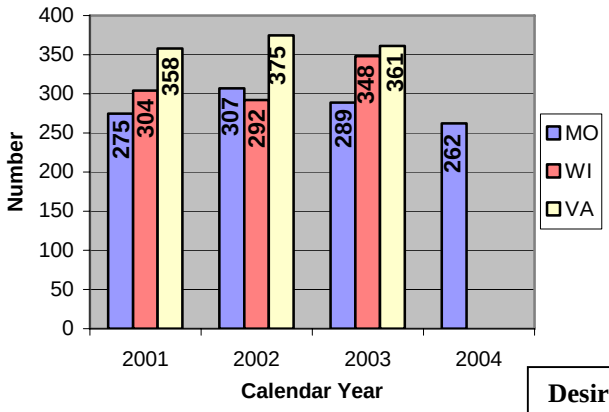
Result Driver: Don Hillis, Director, System Management
Measurement Driver: Scott Turner, Highway Safety Program Administrator

Purpose of the Measure:
This measure tracks annual trends in fatalities and injuries resulting from motor vehicle crashes involving drivers who are impaired by alcohol and/or drugs. It will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on Missouri's roadways.

Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system. Reports on crash data are available to law enforcement and traffic safety advocates for crash analysis through both databases. Fatality data is not final until each fatal crash has been validated and the investigation is closed. Some 2005 crashes are under investigation, therefore, quarterly crash data is not in final form. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri. Each state's data is derived from their traffic crash fact sheets.

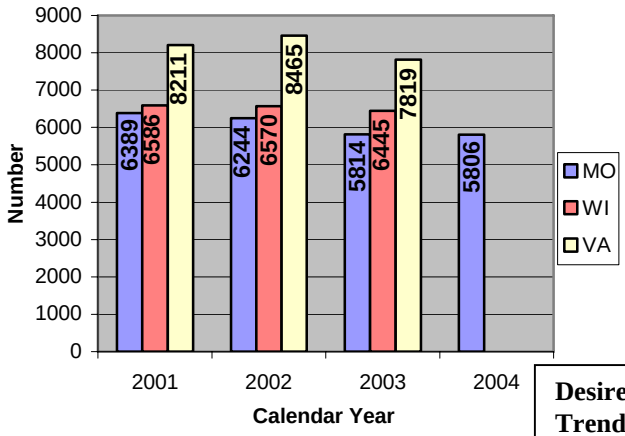
Improvement Status: Alcohol and Drug related fatalities and injuries show downward trends, due to sustained enforcement in targeted high crash corridors. Fatalities in the first quarter of calendar year 2005 were higher than the three previous years. Injuries were slightly lower in the first quarter of 2005 than in the previous three years. Safety advocates, organizations and agencies across Missouri have joined together to create *Missouri's Blueprint for Safer Roadways*. The Blueprint outlines strategies to reduce fatal and serious injuries on our roadways with a goal of 1,000 or fewer fatalities by 2008.

Impaired Driving Fatalities (Alcohol & Drug Involved)



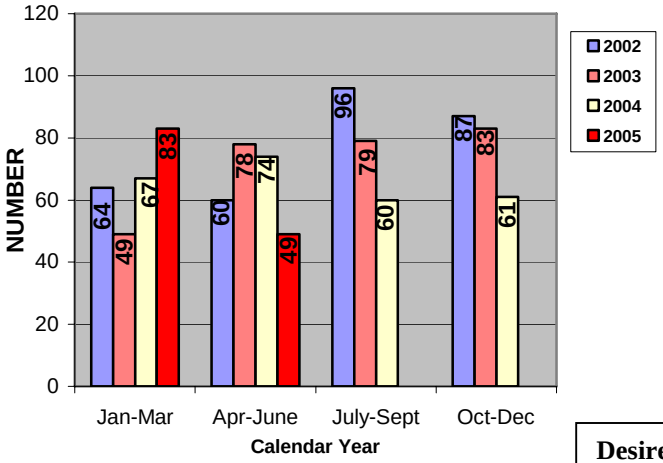
Desired Trend: ↘

Impaired Driving Injuries (Alcohol & Drug Involved)



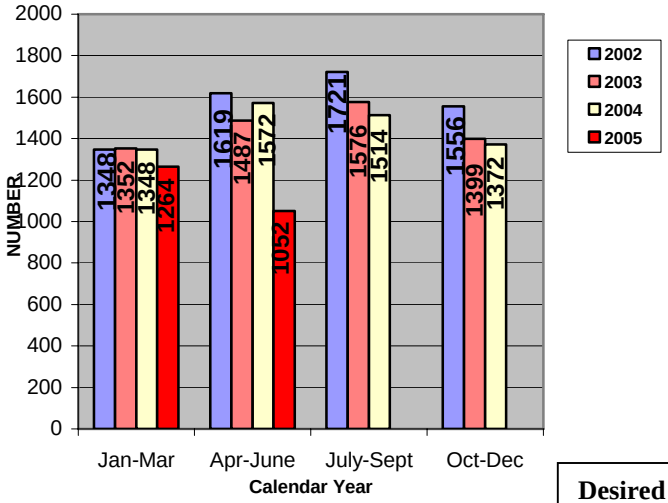
Desired Trend: ↘

Missouri Impaired Driving Involved Fatalities (Alcohol & Drugs)



Desired Trend: ↘

Missouri Impaired Driving Involved Injuries (Alcohol & Drugs)



Desired Trend: ↘

Safe Transportation System

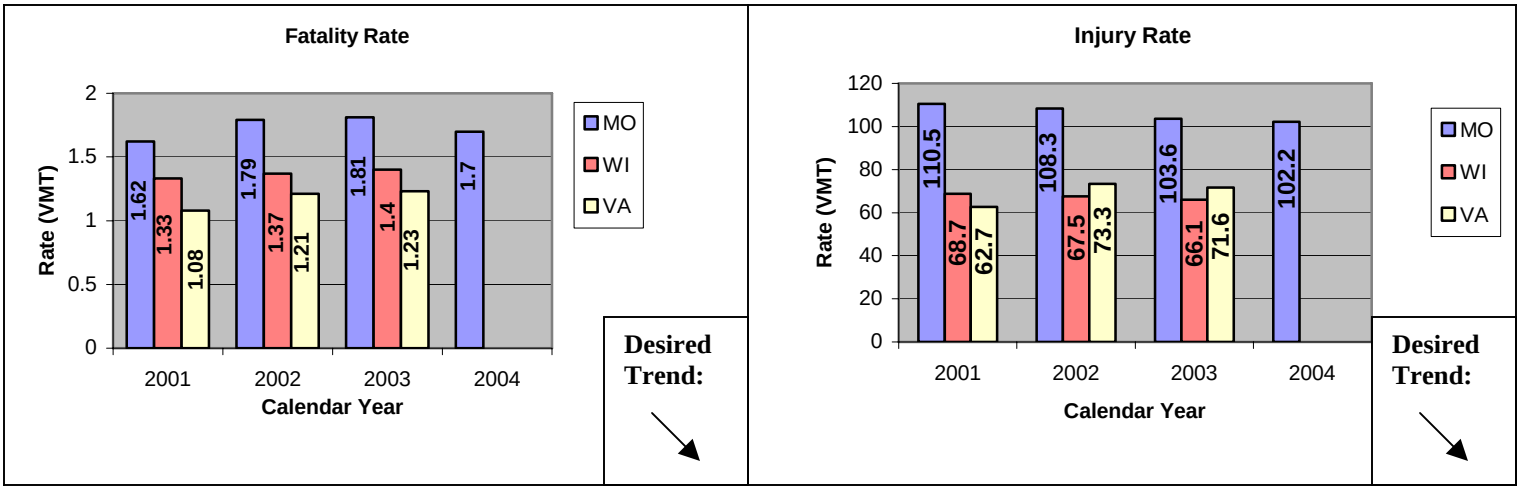
Rate of annual fatalities and injuries

Result Driver: Don Hillis, System Management Director
Measurement Driver: Scott Turner, Highway Safety Program Administrator

Purpose of the Measure:
This measure tracks annual fatality and injury rates per one hundred million vehicle miles traveled (VMT) in Missouri. It will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on Missouri's roadways.

Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system. Reports on crash data are available to law enforcement and traffic safety advocates for crash analysis through both databases. Rates cannot be calculated until the VMT is calculated in July of the following calendar year. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri.

Improvement Status: The fatality rate decreased to 1.7 in 2004 after reaching 1.81 in 2003. The decrease is significant considering there were more vehicles registered and more miles traveled than in any previous year. Targeted enforcement, hazard elimination and increased public awareness all contribute to the decrease.



Safe Transportation System

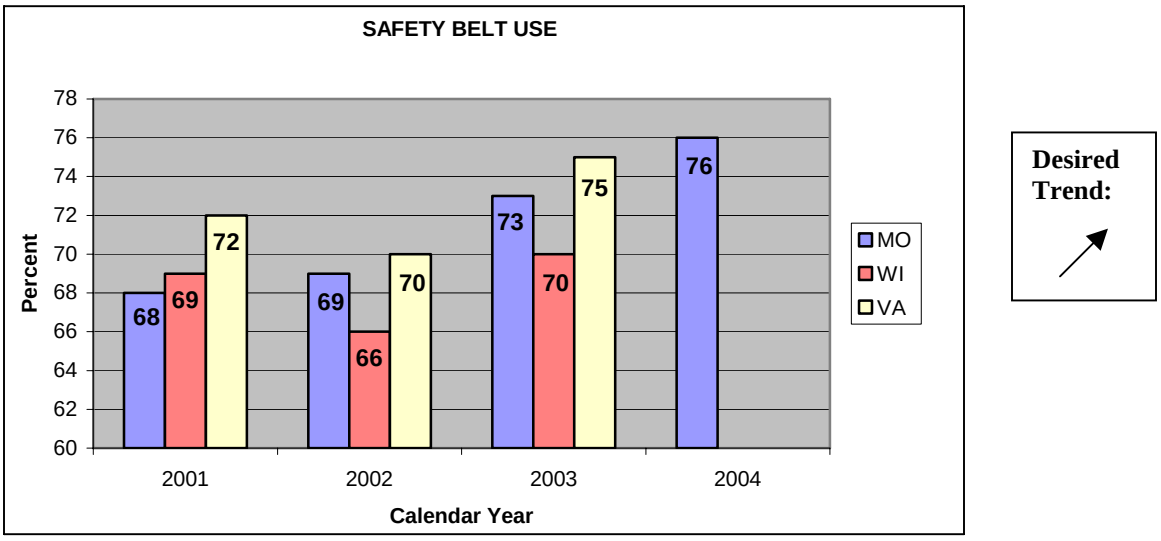
Percent of safety belt/passenger vehicle restraint use

Result Driver: Don Hillis, Director, System Management
Measurement Driver: Scott Turner, Highway Safety Program Administrator

Purpose of the Measure:
This measure tracks annual trends in safety belt usage by persons in passenger vehicles. This measure will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on all Missouri roads.

Measurement and Data Collection:
An annual statewide survey is conducted each June at 480 pre-selected locations in 20 counties. The data collected at these sites is calculated into a rate by use of a formula approved by the National Highway Traffic Safety Administration. The safety belt usage survey enables data collection from locations representative of 85 percent of the state's population. The data collection plan is the same each year for consistency and compliance with national transportation guidelines. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri.

Improvement Status: Safety belt use has increased 7% in the past three years, due to increased public awareness and law enforcement participation in the National "Click it or Ticket" campaign. A pilot program focused on teen usage also proved to be successful in increasing use among teenagers.



Safe Transportation System

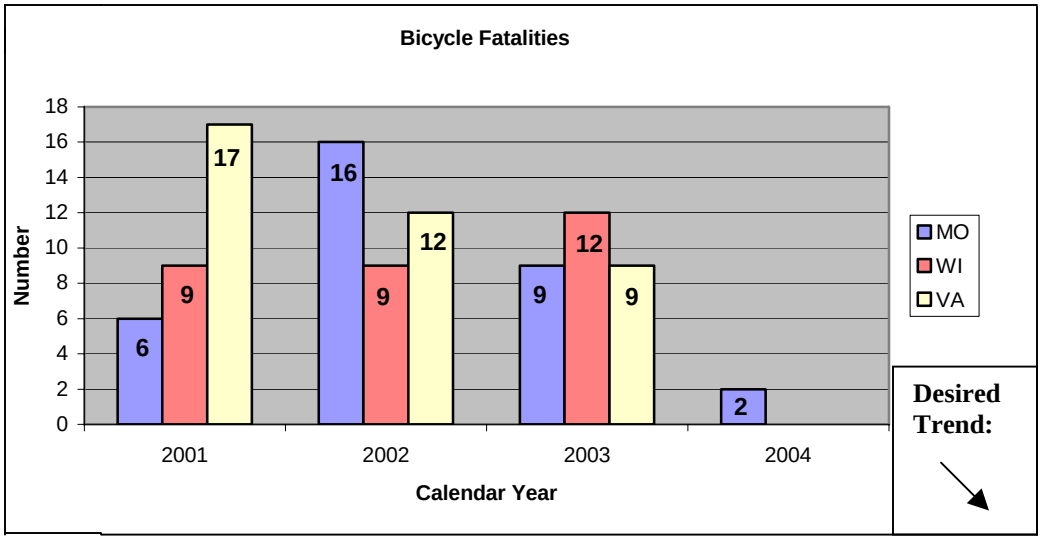
Number of bicycle and pedestrian fatalities and injuries

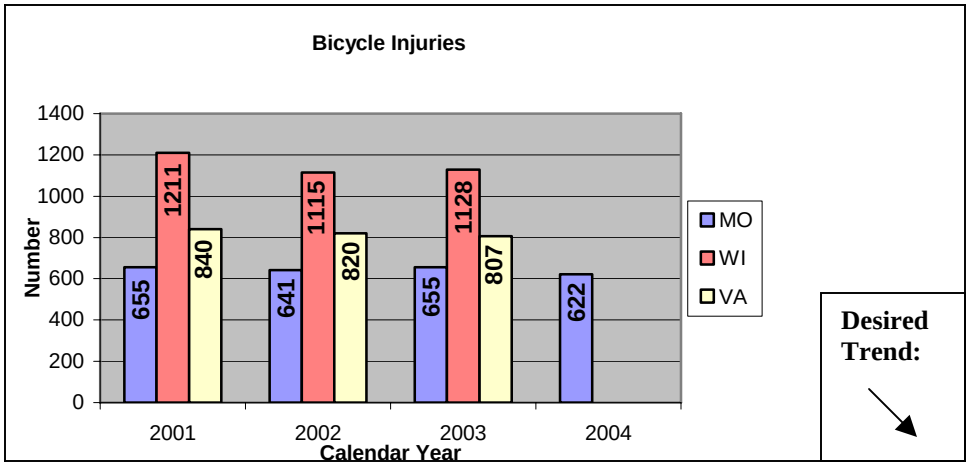
Result Driver: Don Hillis, Director, System Management
Measurement Driver: Scott Turner, Highway Safety Program Administrator

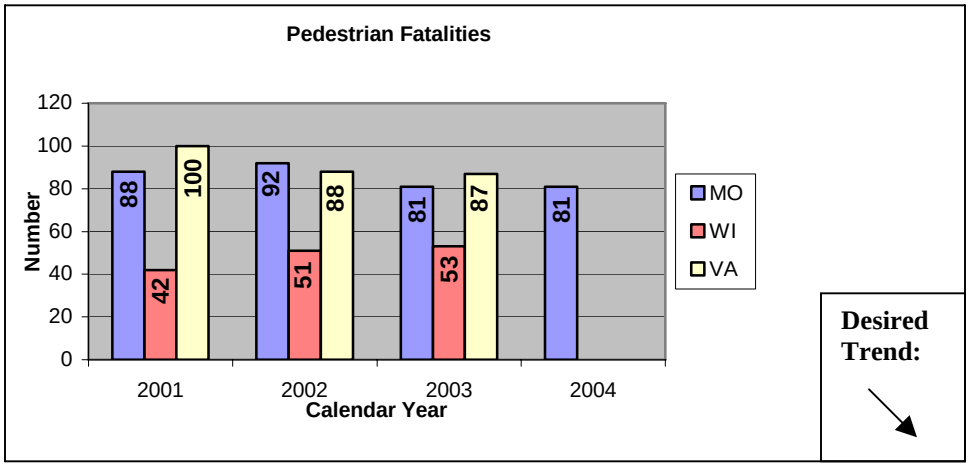
Purpose of the Measure:
This measure tracks annual trends in fatalities and injuries resulting from motor vehicle crashes with bicycles and pedestrians in Missouri. It will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on all Missouri roads.

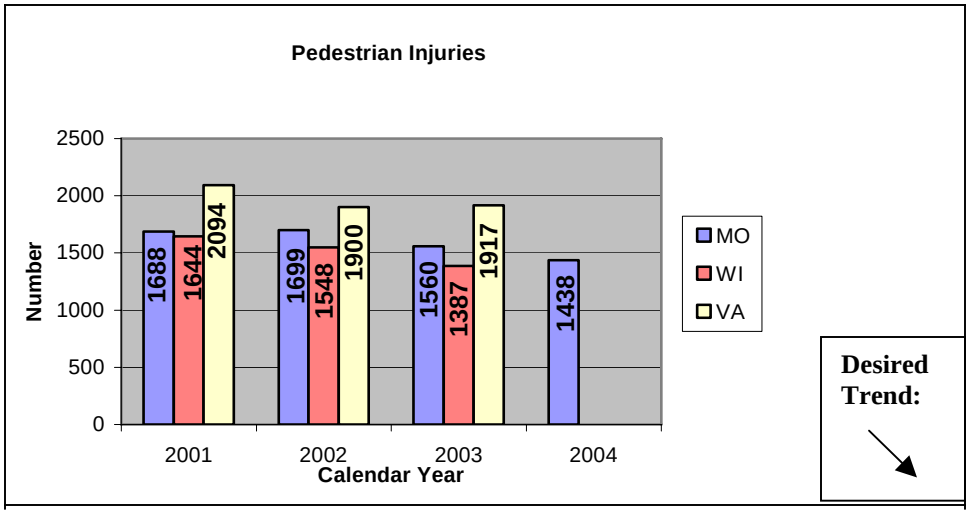
Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system. Final crash data for each year is not available until approximately June of the following year. This data reflects the number of fatalities and injuries occurring when a motor vehicle is involved in a crash with a bicycle. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri.

Improvement Status: There has been a downward trend in bicycle fatalities and injuries over the past three years, due to more dedicated bicycle lanes and riding areas. Pedestrian fatalities and injuries also are on a downward trend, due to improved cross walks and signaling. Funds have been dedicated to the St. Louis and Kansas City regions in support of pedestrian safety under the *Blueprint for Safer Roadways* initiative.




Bicycle Injuries
1400
1200
1000
800
600
400
200
0
Number
655
1211
840
641
1115
820
655
1128
807
622
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:


Pedestrian Fatalities
120
100
80
60
40
20
0
Number
88
42
100
92
51
88
81
53
87
81
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:


Pedestrian Injuries
2500
2000
1500
1000
500
0
Number
1688
1644
2094
1699
1548
1900
1560
1387
1917
1438
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:

Safe Transportation System

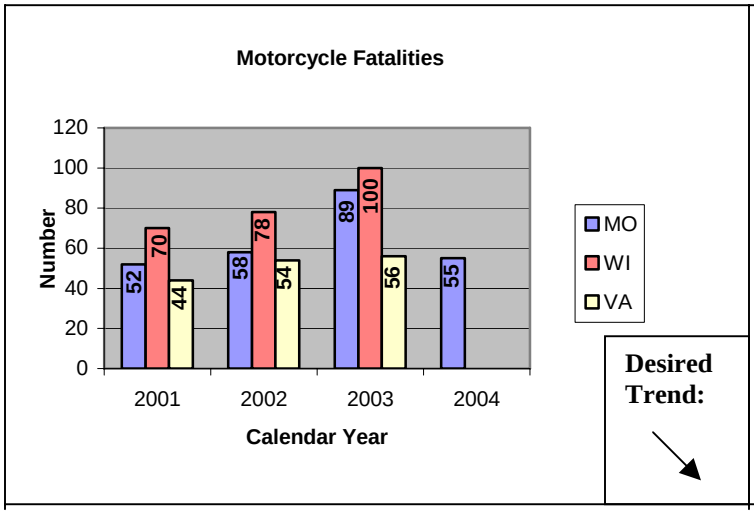
Number of motorcycle fatalities and injuries

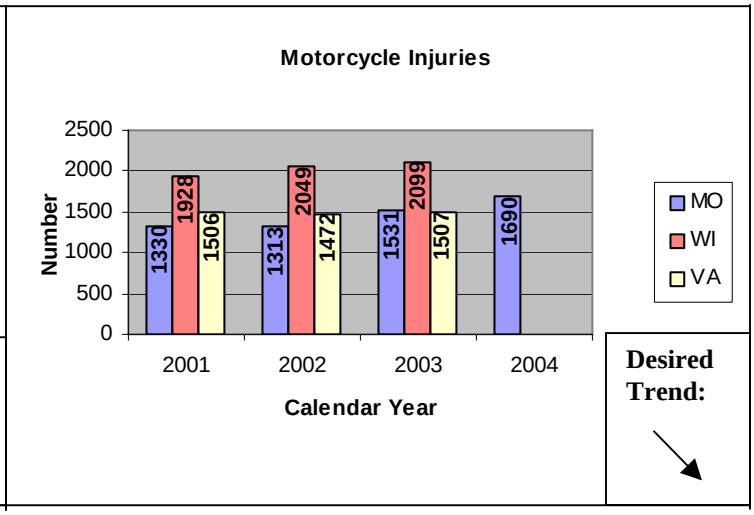
Result Driver: Don Hillis, Director, System Management
Measurement Driver: Scott Turner, Highway Safety Program Administrator

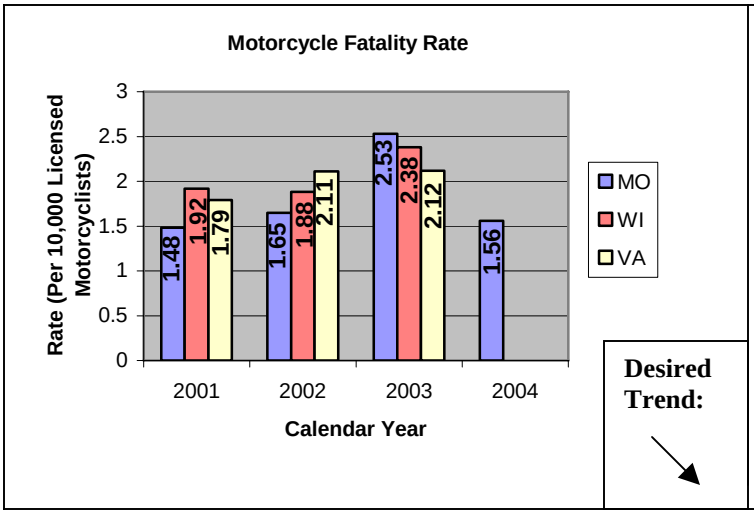
Purpose of the Measure:
This measure tracks annual trends in fatalities and injuries resulting from motorcycle crashes in Missouri. It will help drive the Missouri Highway Safety Plan, which supports the *Blueprint for Safer Roadways*, toward efforts that reduce the number of fatalities and injuries on Missouri's roadways.

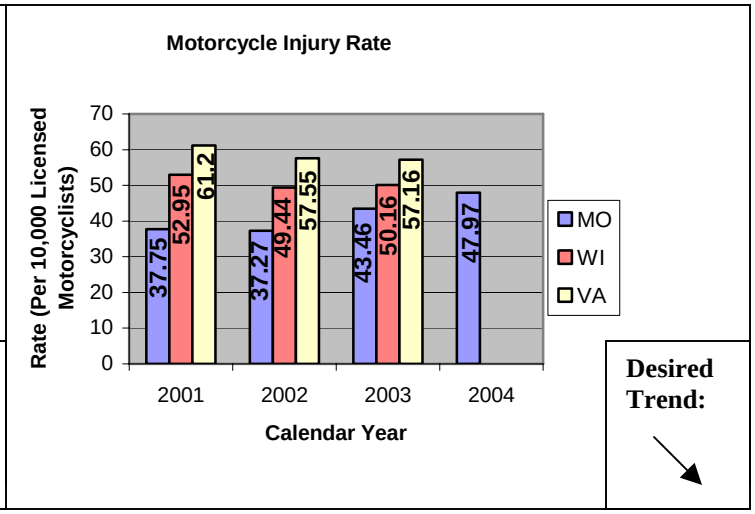
Measurement and Data Collection:
Crash data is collected by the Missouri State Highway Patrol and entered into a traffic accident record system. The record system automatically updates MoDOT's traffic management system. Reports on crash data are available to law enforcement and traffic safety advocates for crash analysis through both databases.

Improvement Status: Fatalities have shown an upward trend over the period from 2001 to 2003. There was a significant reduction in fatalities in 2004. Injuries continue an upward trend, due to increased number of registered motorcycles and inexperienced riders. More rider training sites and instructors are added each year contributing to the increased number of trained riders. Missouri is compared to the states of Wisconsin and Virginia, as they are demographically similar to Missouri






Motorcycle Fatality Rate
Rate (Per 10,000 Licensed Motorcyclists)
3
2.5
2
1.5
1
0.5
0
1.48
1.92
1.79
1.65
1.88
2.11
2.53
2.38
2.12
1.56
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:


Motorcycle Injury Rate
Rate (Per 10,000 Licensed Motorcyclists)
70
60
50
40
30
20
10
0
37.75
52.95
61.2
37.27
49.44
57.55
43.46
50.16
57.16
47.97
2001
2002
2003
2004
Calendar Year
MO
WI
VA
Desired Trend:

Safe Transportation System

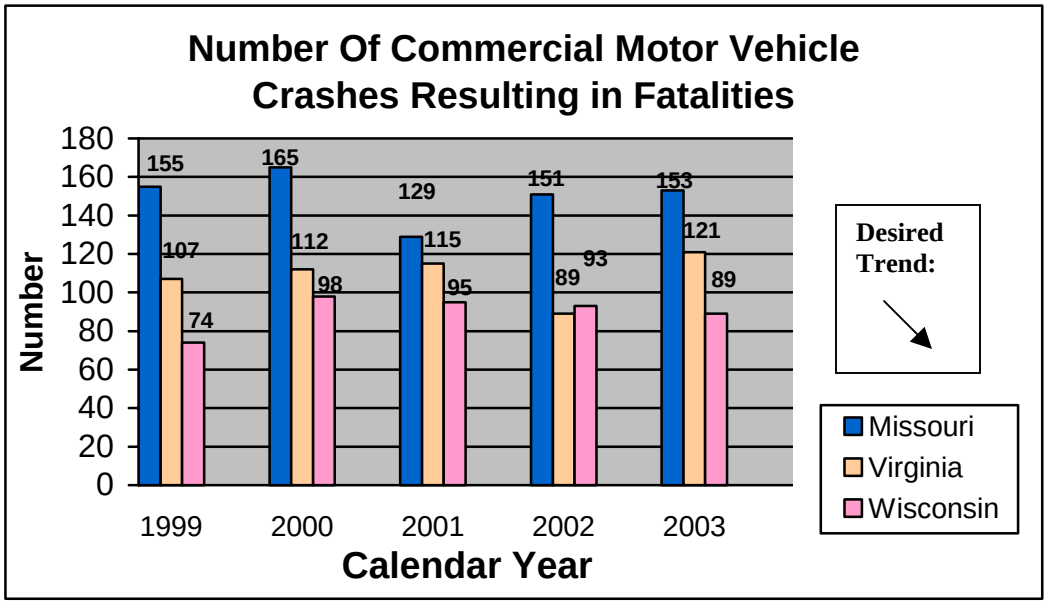
Number of commercial motor vehicle crashes resulting in fatalities

Result Driver: Don Hillis, Director of Systems Management
Measurement Driver: Charles Gohring, Motor Carrier Services Program Manager

Purpose of the Measure:
This measure tracks the annual number of commercial motor vehicles involved in fatality accidents. The measure assists Motor Carrier Services in targeting educational and enforcement opportunities in an effort to decrease commercial vehicle related fatalities.

Measurement and Data Collection:
Crash statistics are derived from the U.S. Department of Transportation, Federal Highway Administration's Analysis & Information Online Crash Profiles. The data reflects the number of commercial motor vehicles involved in crashes where one or more persons dies within 30 days of the crash. The fatality does not have to occur at the scene of the crash. It includes any person involved in the crash, including pedestrians and bicyclists, as well as occupants of the passenger cars, trucks, and buses. Missouri is compared to the states of Virginia and Wisconsin, as they are demographically similar to Missouri.

Improvement Status:
During the period from 1999 to 2003, the number of Missouri CMV fatal crashes varies little with the exception of the noticeably lower number of crashes that occurred in 2001. However, the five-year trend indicates the number of fatal CMV crashes is slowly dropping from 165 in 2000 to 153 in 2003, due to coordinated CMV safety efforts by MoDOT, the Missouri State Highway Patrol and the Kansas City and St. Louis police departments. Statistics for 2004 are not yet available from the Federal Highway Administration.



Safe Transportation System

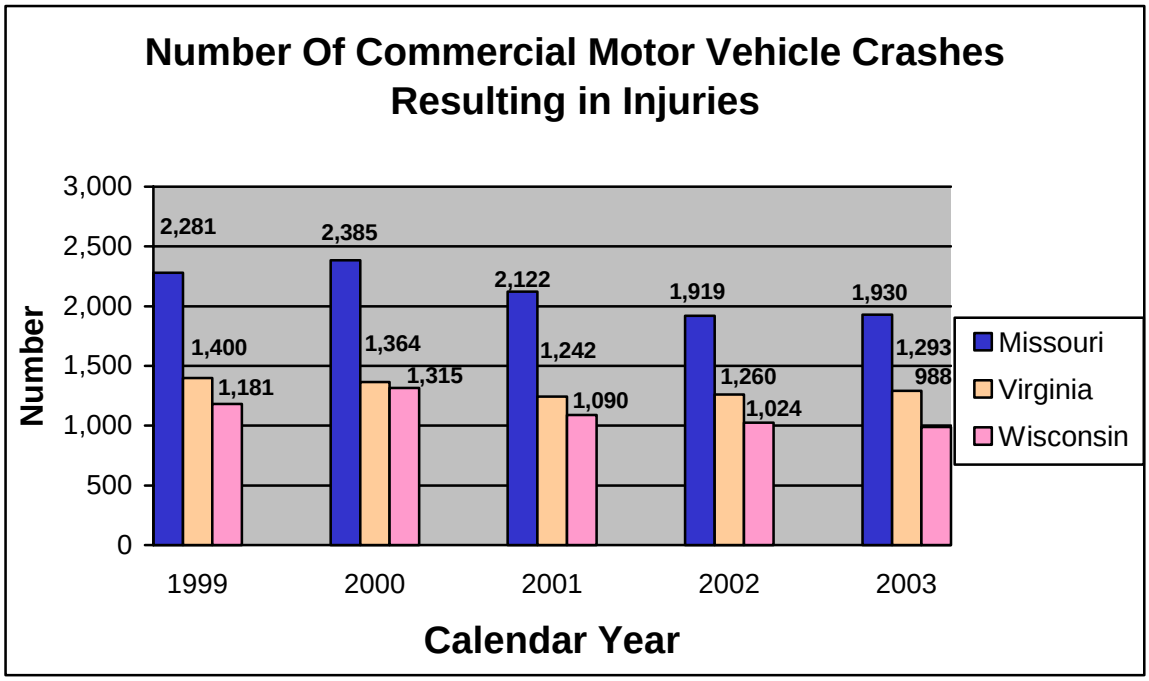
Number of commercial motor vehicle crashes resulting in injuries

Result Driver: Don Hillis, Director of Systems Management
Measurement Driver: Charles Gohring, Motor Carrier Services Program Manager

Purpose of the Measure:
This measure tracks annual number of commercial motor vehicles involved in injury accidents. The measure assists Motor Carrier Services in targeting educational and enforcement opportunities in an effort to decrease commercial vehicle related injuries.

Measurement and Data Collection:
Crash statistics are derived from the U.S. Department of Transportation, Federal Highway Administration's Analysis & Information Online Crash Profiles. The data reflects the number of commercial motor vehicles involved in crashes where one or more persons are injured in the crash. It includes any person involved in the crash, including pedestrians and bicyclists, as well as occupants of the passenger cars, trucks, and buses. Missouri is compared to the states of Virginia and Wisconsin, as they are demographically similar to Missouri.

Improvement Status:
During a five-year period from 2000 to 2003, the number of CMV crashes resulting in injuries continuously decreased. The improvement is likely due to coordinated CMV safety efforts by MoDOT, the Missouri State Highway Patrol and the Kansas City and St. Louis police departments. Statistics for the number of injury crashes that occurred in 2004 are not yet available from the Federal Highway Administration.



Safe Transportation System

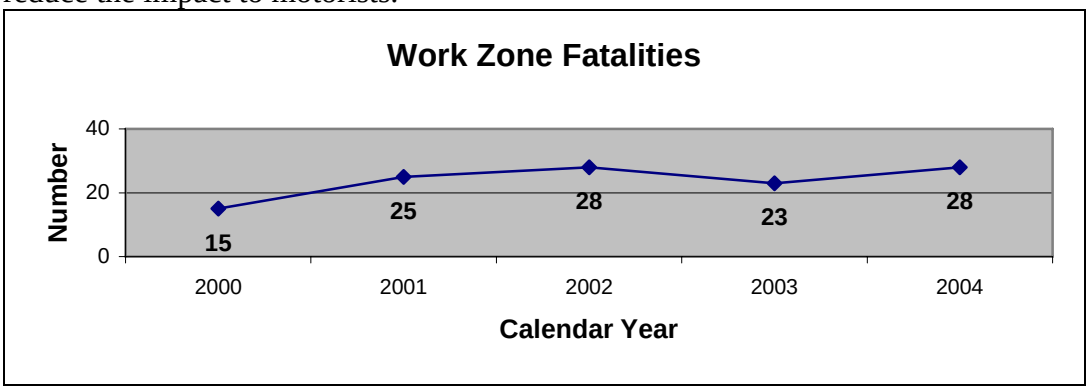
Number of fatalities and injuries in work zones

Result Driver: Don Hillis, Director of System Management
Measurement Driver: Scott Stotlemeyer, Technical Support Engineer

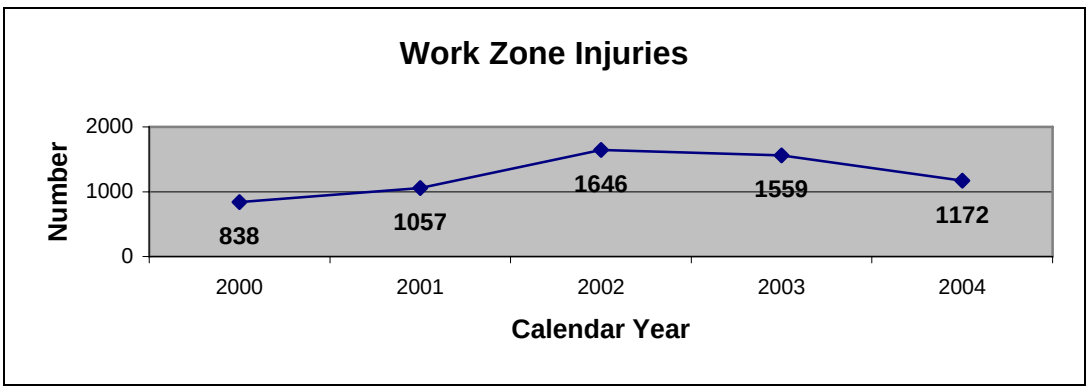
Purpose of the Measure:
This measure tracks motorist and worker injuries and fatalities, related to a traffic crash, in and around work zones on all public roads in Missouri.

Measurement and Data Collection:
Data is gathered through query and analysis of reported crashes via the standardized Missouri vehicle accident reporting form. All law enforcement agencies are required to submit completed accident report forms to the Highway Patrol for inclusion in the statewide crash database. This data is filtered to identify crashes that occurred within a work zone.

Improvement Status:
There was an increase in work zone fatalities last year, but there has been a significant drop in work zone injuries. The increasing trend in crashes corresponds to the recent increases in our total construction program. The decrease in injuries is related to the strategies MoDOT has implemented to improve work zones. Renewed emphasis has been placed on work zone management, improvements to the sign sheeting, and, when possible, scheduling work at night to reduce the impact to motorists.



Desired Trend: ↘



Desired Trend: ↘

Safe Transportation System

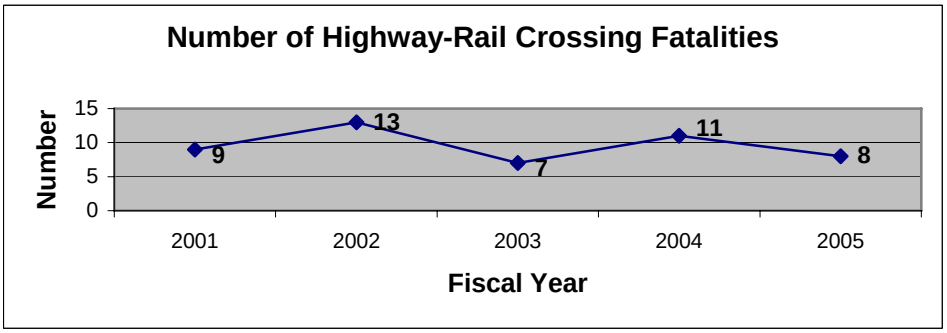
Number of highway-rail crossing fatalities

Results Driver: Don Hillis, Director of System Management
Measurement Driver: Rod Massman, Administrator of Railroads

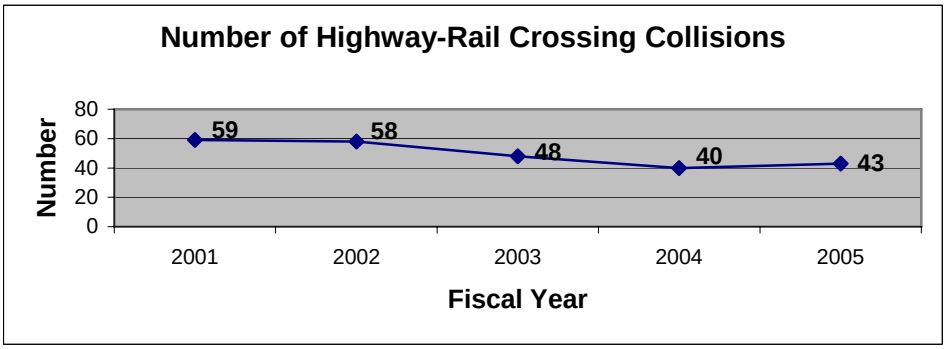
Purpose of the Measure:
This measure tracks annual trends in fatalities resulting from train-vehicle crashes at railroad crossings in Missouri. It will help drive the highway safety plan, which supports the Blueprint for Roadway Safety, toward efforts that reduce the number of fatalities, collisions and injuries at Missouri's highway-rail crossings.

Measurement and Data Collection:
Crash data is collected by the Multimodal Operations Division Railroad Section and is entered in a railroad safety information system (RSIS). The record system is used to update MoDOT's traffic management system. Final crash data for each year is tabulated on a fiscal year basis. This figure does not include fatalities from those trespassing on railroad property at areas other than at railroad crossings, which are tabulated separately.

Improvement Status:
Highway-rail crossing fatalities and collisions have declined overall since 2001. Efforts by MoDOT, the railroad industry, and law enforcement to place a greater emphasis on increasing public awareness about rail crossing safety are having an impact. Also, limited crossing improvement funds have been focused on crossings with a history of accidents or limited sight distance.



Desired Trend: ↘



Desired Trend: ↘